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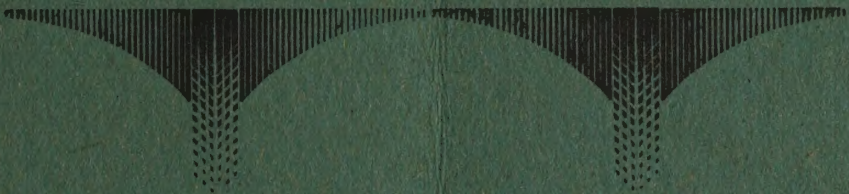
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U. S. Department of Agriculture.

POTATOES for PROFIT



HOW TO SELECT SEED.

HOW TO PLANT.

HOW TO ESCAPE BLIGHT.

BY

H. E. MCGOWAN.

WAIMATE:

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MDCCCXVII.

PREFACE.

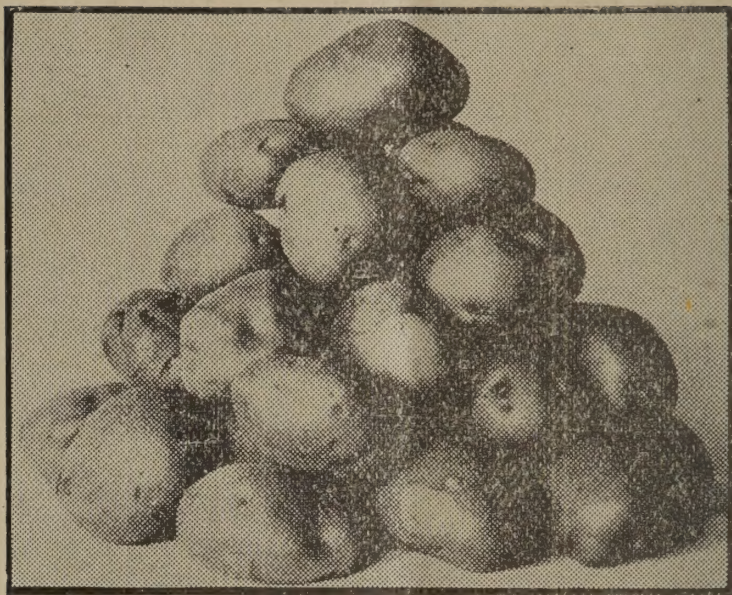
Dear Readers. In putting before you this booklet my desire is to bring under your notice some of the more recent and valuable varieties of potatoes, to encourage and assist those who from one cause and another fail to secure good crop and to help those who lose their crops year by year from the dreaded blight. And I feel safe in saying that no plant of late years has aroused a deeper interest than this noble tuber, especially now that we have this disease to fight against. It will be my endeavour to place before the potato growers of New Zealand and farmers particularly, seed true to name and already proved worthy of merit by the best and most reliable growers of Great Britain and America.

I feel that I have undertaken a great work and the success of it lies mainly with you. If you will give me your earnest co operation I hope to place before you in the course of a year or so something which will be a source of pride to you and to me and a benefit to the colony as a whole. I hope to place all new tubers on the market at a reasonable figure. If I can be the means of enabling growers to double their yield and adopt varieties which are blight resisting that will be a sufficient reward to one who has made the potato and its growing a study and a hobby.

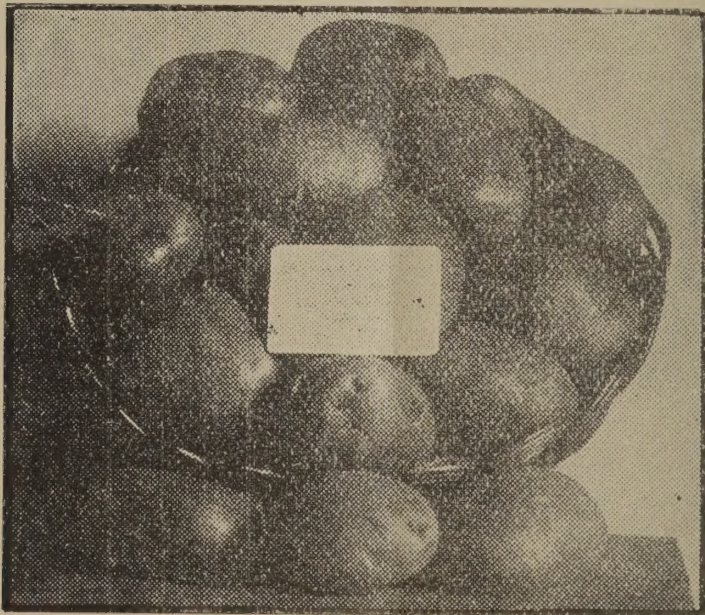
H. E. McGOWAN,

Willowbridge.

South Canterbury, New Zealand,
August 1907.



HENDERSON'S EARLY PURITAN.
The finest First Early Potato ever grown



PRINCESS VICTORIA.
For quantity and quality and as a blight-
resister this now far famed Maincrop is
unequalled.

POTATOES FOR PROFIT.

Lately I have had many enquiries from potato growers in all parts of Australia, Tasmania and New Zealand as to the merits of different varieties of potatoes, their blight-resisting qualities and what methods I use to stop the blight, and which varieties have been found, so far, most able to resist the blight. For those interested I will give results of my different experiments and trust that they will be of some benefit to planters. About four years ago I commenced experimenting with different varieties, some 20 in number; I now have 160, and next year expect to experiment with about 200 varieties. In the following remarks I will follow the potato from the fork to the time it is ready for digging again.

DIGGING, PICKING UP AND CLASSING.

All potato growers should know that when the tubers are ready for lifting, the haulm generally grows yellow and the potatoes when rubbed in the hand should not skin. Begin digging as soon as they are ripe, but not before, if you want your potatoes to keep sound and retain weight and quality. There are several machines now on the market for digging, and some of them are probably right enough for some soils, but I do not think we have any yet to compare with a good man and the fork. The proper time to pick your next year's seed is when digging, picking only from the most prolific and best shaped hills and by doing this it will be found that the quantity and quality of the crop will be increased every year. Do not take a well-shaped seed potato from a hill that has a majority of badly shaped potatoes, for it will likely produce a worse lot the following year. I think "like begets like" more in potatoes than in anything else. A great many farmers will plant potatoes of all shapes, all sizes and sometimes all colours and wonder why they grow such a poor crop. They probably grow five or seven tons per acre, when by selecting their seed as above they would grow 10 or 15 tons per acre. I believe in classing thoroughly at digging time for then all the potatoes are spread out and it can be seen what are available and one handling is more satisfactory than two. Pick the seed as already advised, then the marketable tubers, and lastly the roughs or pig potatoes. Don't put the large, rough, horny potatoes amongst the market quality, let them go to the pigs—they will not object to them, the buyers will. If such potatoes are classed as table quality, it will spoil your name as a grower of good potatoes. See that the potatoes are dry before putting

them in the sacks, and cart in every night if possible. If they are left in the field you may get a wet spell and you cannot store your sacks of potatoes wet, you will have probably to leave them in the paddock until the bottoms are rotten, which does not take very long.

STORING.

I cannot say that I believe in pitting, although it is an old style idea and no doubt not a bad one. If I have an empty shed I stand the bags in it, on end, two high. If I have no empty shed I select a place in a plantation, a dry spot if possible, tie a few rails to two or three trees, then put down plenty of branches or gorse, then straw and commence my heap as above, sacks on end, two high. When finished, cover up thoroughly with plenty of straw, also place and tie bundles of straw all round the stack, or better still, thatch all over, and you will find that your potatoes will keep better this way than in the pit, and will keep a month or six weeks longer before sprouting. Also when you sell your potatoes are already bagged up, which saves a lot of extra labour.

ROUND OR CUT SEED.—There seems to be a great diversity of opinion on this point. I have tried both in alternate rows and have found no perceptible difference. I prefer round seed, for the simple reason that you get no misses. I really think a great deal depends on the season as to the success of cut seed—if too dry the seed is liable to dry rot, and if the ground is too wet then or a lot of wet immediately after planting, it is again liable to rot. By cutting the seed year after year the potato producing germ is undoubtedly weakened and the crops will get smaller every year and of worse quality. I like my seed about the size of a fair sized hen's egg. If you wish, cut your seed longitudinally, leaving three or four eyes on each piece. I have cut to one eye and from three small Northern Stars secured 153lb; also from one large "Village Blacksmith" I have secured 120lb. As soon as the seed is cut throw a little lime and wood ashes over it and plant soon; by doing this I seldom lose a set.

TO PREVENT BLIGHT.

It is very difficult to advise on this subject, for so much depends on locality, climate, weather and the soil. There seems to be more diversity of opinion on the blight question than on any other; some say it is the real Irish blight, others say it is not; some believe in spraying, while the majority maintain it does no good. I would advise securing robust and vigorous growing potatoes for seed such as Princess Victoria, Sutton's Discovery, Eldorado, Champion Skerry, Scotia, Up-to-Date, and several others that seem to have strong vitality and are able to

withstand the blight better than others. I believe there is no potato really immune, and different varieties will stand in some localities better than others.

Plant on new ground, if possible, choosing a dry, sunny spot with good drainage, and give plenty of room between the rows, north and south if possible, for the sake of the sun.

PREPARING POTATO GROUND.

Choose the patch about April or May, new ground if possible. Skim plough about three inches deep and let the land remain until the end of June. Then run a disc harrow with the furrows to open the soil for the frost. About the end of July cross harrow, scatter the lime if you use lime, and cross plough as deep as possible. Remember, you can not plough too deeply, for potatoes like plenty of mould. When you are ready to plant you will find that the land will need very little more cultivation, save, perhaps, another stroke of the disc. Then put in the harrows and you can plant the seed. If there is couch in the land you will have to use the cultivator, the frost and sun will kill the roots as well as any nor'wester.

PLANTING AND CULTIVATING.

First, see that the land is in good order, with plenty of fine deep loam, which you will have if you work it as directed. Some plant by first opening up drill with a moulding plough, ploughing the seed in these drills and then splitting or dividing the hills, and this is not a bad way—I have done it and got big crops. This method is really preferable in damp land, for it gives the potatoes immediate drainage. Others plough the potatoes in, either with a single, double or three-furrow plough. Plant the seed about four inches deep and about 18 inches apart in the drill and about 30 inches between the drills. Different potatoes need different distances, a small growing variety, such as the Robin Adair, would do with 12 inches in the drill and 24 inches between drills, while a very vigorous grower, such as Princess Victoria, would need two feet in the drill and 33 inches between drills. Harrow the ground about a week or ten days before the potatoes come up, and again just as they are coming through, with short-tined harrows. This will save a lot of hand work later on. I do not believe in much horse hoeing consider tons of the best tubers are destroyed every year by farmers horse-hoeing too much and too late. All the best potatoes are to be found on the shoots or runners farthest from the haulm, and naturally these are the ones cut by the hoe. Commence moulding early, for by early moulding you protect your haulms and also smother any weeds that may be coming through. Do not go too deep at the first moulding, be careful not to cover the young potatoes. Mould a second

time as soon as the tops will stand a little more earth against them; and if possible a third time as deeply as possible. A lot of loose soil will fall back in your furrow, but this helps the growth of the crop. If any weeds come after this pull them by hand, for it will not pay you to grow weeds. Remember you cannot grow potatoes and weeds together, the weeds soon smothering the crop and also filling the land with weeds.

MANURING.

Cultivation is the best manure you can give. If the land is really poor use guano—I have tried superphosphate, potash, lime and guano. Guano gave the best results, potash second, lime about the same; superphosphates gave them the blight badly.

GENERAL REMARKS.

Some readers will not agree with all that I have written, probably. I have just given my actual experiences, on extra good land and a good South Canterbury climate. Locality, soil and climate make a vast difference in cultivation, for what will suit one place will not suit another.

The whole of the above summarised amounts to—

Be most careful about picking your seed.

Keep out all blight-stricken tubers.

Thoroughly cultivate your land.

Keep down weeds

and you will get the best your land will grow. Most of the above remarks regarding cultivation, etc., will also apply to mangel, carrot, and swede turnip growing.

SOME SCIENTIFIC NOTES.

The United States Department of Agriculture is a most complete organisation and from a recent pamphlet I take the following extracts:—

THE MEANING OF DISEASE RESISTANCE.

The term “disease proof” is not to be taken literally, as no variety has as yet shown itself to be absolutely proof against disease. Varieties are known, however, which show a relatively high degree of disease resistance, which may be shown by the delay in date of appearance of blight on the leaves or its slower progress after appearing and still more clearly in the relatively small amount of loss from rot of the tubers.

IMPROVEMENT BY SELECTION.

All plants tend to vary and one of the commonest ways to improve them is by selection from the varying individuals. For the first two years after their origin, variants or “rogues” are not uncommon with the seedling potato but the variety is fixed by the weeding of such rogues before it is distributed for general culture and then

very little variation occurs. However some modification may be expected, among other things in disease resistance, so that it is worth while to keep a look-out for individual plants which show especial resistance to the epidemic when the blight is about them. The tubers of such individuals deserve to be carefully saved apart and planted in order to see whether their resistance is of a fixed character or accidental.

LATE OR EARLY VARIETIES.

The blight never becomes serious till the mid-season of potato growth is passed, therefore early varieties as a rule escape simply because they mature before the blight is epidemic. There is evidence in Europe and America that when planted late enough to expose them to the disease along side the later ones the early varieties as a class suffer the most.

RELATION OF SOURCE OF SEED AND CULTURAL METHODS TO DISEASE RESISTANCE.

The opinions of the best potato growers in Great Britain and Europe are that northern-grown seed is more highly disease resistant as well as more productive, so that for best results in crop health, attention should be directed to quality and source of seed, as well as to variety. Methods of culture also determine to a considerable degree liability to disease. Seed dealers in the States and the Continent express a preference for seed from a crop that has not been very highly fertilised, especially with nitrogenous manures, as high manuring increases the liability to disease.

COMPOSITION AND CHARACTER OF TUBERS AS RELATED TO ROOT RESISTANCE.

There is considerable evidence that the chemical composition of the tubers bears a direct relation to resistance to rot. Varieties rich in amids are more liable to rot, although of superior table quality, and varieties relatively richer in starch including several recently originated German factory varieties are less liable to rot but are of inferior quality for table use. The thicker and rougher skinned red varieties have a higher degree of disease resistance, whereas the thin skinned white varieties, which are more liable to the disease, have proportionately less starch and more protein. However, character of skin is a less reliable index to rot resistance than is chemical composition. Breeders aiming at disease resistance need not turn from the white skinned varieties.

CHARACTER OF STEM AND FOLIAGE AS RELATED TO DISEASE RESISTANCE.

It is not safe to go far in generalising in this regard. Messrs Sutton and Sons' potato expert considers that a

stem strong rough and hard, almost woody at the base, is an important index, while others consider the nature of the foliage more important, the preference being for small leaflets, rough and relatively thick rather than large and flabby. A rich dark green is preferred to the light coloured foliage. It seems probable that character and colour of foliage should stand in close relation to the other matters which have with certainty been shown to be related to disease resistance, viz., general vigor and capacity for starch manufacture.

I would also advise growers of potatoes to send for Bulletin No. 7 on Potato Diseases issued by New Zealand Department of Agriculture. In this you will find a lot of useful information respecting different blights and how to cope with them.

HOW TO INCREASE YOUR YIELD.

First pick your seed most carefully as I have already directed, change your seed every two years, getting your change from a colder and poorer part of the country than where you are and get from a reliable grower. Plant in new ground cultivated as I have already advised. Plant only the varieties you find will suit your soil and carefully attend to your crop until it is ready to dig. Plant early.

HOW TO ESCAPE BLIGHT.

Plant as early as possible so that your crop will have a chance to ripen before the disease begins to travel. Plant only the most vigorous growing tubers, choosing same by roughness of skin, a coloured variety with a rough skin is generally more robust than a white variety. Different countries prefer different varieties. Several of the large experimenters in Great Britain, Europe and America are now experimenting with the new wild tuber from Uruguay, South America—*Solanum Commersonii* Violet. This tuber has been inoculated with blight five times and has failed to respond, it has also grown up to 40 tons per acre, so if their hopes are realised it will be a boon to the potato growing world. I would advise growers to find out for themselves which variety suits their soil and keep to it. No one variety is really blight proof but those having the largest percentage of starch are the most able to withstand the ravages. Plant all tubers on new ground and if manure is necessary use guano. Plant North and South to give plenty of sun; do not crowd your rows or your hills; mould high; if you plant diseased tubers you deserve to lose your whole crop.

PRICES OF SEED.

All orders over £1 accompanied by cash will receive a discount of 10 per cent in value; this will be given in potatoes.

SOLANUM COMMERSONII.

This new variety was first introduced into France from Uruguay in 1895 by Colonel Candido Robido, then French Consul at Monte Video. Its good points as clearly established in France are that it prefers a moist soil, in dry land producing no more than the ordinary potato; it is entirely free from the ravages of the potato blight and hardly affected by frost at all, even when young; the green sunburnt parts can be eaten as well as the white, there not being the bitterness found in the ordinary potato; the yield per acre was 20 tons. With such valuable qualities there is considered a prospect of restoring the golden age of Irish potato growing before the blight commenced in 1847.

PRICES ON APPLICATION.

PRINCESS VICTORIA.

The famous main crop

Acknowledged to be the finest tuber yet produced, coming out top in all experiments, including those conducted at the International Exhibition at Christchurch. In the analysis conducted by Mr G. Gray, F.C.S., the results were Princess Victoria: 77.7 water, 16.5 starch; American Burbank 78.6 water, 16.6 starch; Magnum Bonum 79.8 water 14.5 starch; Up-to-date: 83.1 water, 11.1 starch. This shows the quality of this tuber for culinary purposes; when properly cooked it should come to the table as a veritable ball of flour and when once used will always be used in preference to any other kind. It is a strong and vigorous grower, generally standing inches taller in the haulms than any other variety and at flowering time it is a picture worth seeing to look over a few acres of the splendidly even tops massed with beautiful bright violet flowers. The tubers are of splendid shape, fit for any show plate, indeed can seldom be beaten; and, with rough white skin, even eyes and with very few small potatoes. Undoubtedly an ideal potato and should be grown by all who grow even a few square yards of ground, for being such a tremendous yielder, a few good roots will fill a sack. Princess Victoria is of strong and vigorous vitality and therefore more able to resist the blight than other varieties.

Price: Fourpence a pound; £1 10s per cwt.

LORD ROBERTS,

Main crop,

Another splendid introduction running Princess Victoria very close; not quite such a heavy cropper but is a tuber of splendid quality with rough skin showing an amber hue, shape round and flat, some running to oval, haulm dark green of running or flat growth, flowers white, Strong vitality and good blight resister.

Price: Fourpence per pound; £1 10s per cwt.

IRISH FLOUNDERS,

(Second early)

A fine round variety with a rough skin, a heavy cropper of excellent quality, a real show variety, once grown always grown, tubers large and perfectly round, eyes level with the surface, a robust grower and strong resister of the blight.

Price: Four pence per pound; £1 10s per cwt,

HENDERSON'S IMPROVED EARLY PURITAN,

(Extra first early)

This I consider my best first early. The tubers form as soon as the tops show above ground, the quality right along is excellent and for eating this variety will dig fully fourteen days earlier than any other kind, tuber round with fine white skin, shallow eyes. Should be in everybody's garden plot and you will not fail to have good early potatoes for Christmas dinner.

Price: Fourpence per pound; £1 10s per cwt,

FITCH EARLY,

(Extra first early)

This is a pink-skinned kidney which runs Henderson's Early Puritan very close; the quality is not quite so good, perhaps, but it is rather a heavier yielder with small tops; beautifully shaped tubers, shallow eyes, a favourite wherever grown.

Price: Four pence per pound; £1 10s per cwt,

CARTER'S EARLY FAVOURITE,

(Extra first early)

Another of our best first earlies; a round variety with a pretty bluish skin, fine flavour and a good cropper, really suits a dry soil best, upright haulms of dark colour, a good show tuber.

Price: Four pence per pound; £1 10s per cwt.

SNOWDROP No. 1,

(Extra first early)

A good potato of oval shape with shallow eyes and white skin, a favourite with all who have grown it, a heavy cropper for a first early variety, first class certificate R.H.S.

Price: Three pence per pound; £1 per cwt.

SCOTIA.

This main crop tuber is one of the best yet introduced and will be heard more of later on; it is a pink skinned potato, oblong, one of the best blight resisters; heavy cropper and splendid quality; dark green tops of upright growth. Price: Three pence per pound; £1 per cwt.

CHALLENGER.

Another splendid introduction; large well shaped potatoes; oval shape with white skin which is inclined to turn blue after being dug a few weeks; good quality, of robust constitution and a blight resister.

Price: Three pence per pound; £1 per cwt.

CHAMPION KERRY.

Ireland's favourite potato and naturally one of the best blight resisters we have; indeed it is the mainstay in Ireland where the blight is so bad. A blue skinned variety, rather deep eyes, beautiful flavour and a heavy cropper. Haulms like wire of upright growth.

Price: Four pence per lb; £1 10s per cwt.

NORTHERN STAR.

Unnecessary to describe, for this tuber is now so well known. A heavy cropper and of good quality if kept about five months. I expect to see this potato come into favour again for it is not so bad as some growers paint it.

Two pence per lb; 15s per cwt.

RIVER'S ROYAL ASHLEAF.

One of the best Ashleaf varieties I have experimented with, giving a good crop; beautiful flavour and very early.

3d per lb, £1 per cwt.

IRELAND'S FAREWELL.

An ideal shaped light blue skinned potato, splendid for show purposes, also heavy cropper, and fine flavour, main crop variety.

3d per lb, £1 per cwt.

BREEZE'S PROLIFIC.

It is not necessary for me to describe this grand old potato, it being so well known, good cropper, fine flavour and shapely tubers; First Early.

2d per lb., 15s per cwt.

EARLY ROSE American.

If you can get the true Early Rose it is well worth growing, being early, large cropper and good flavour. There are now so many pink skinned potatoes put on the market as Early Roses which are not so buyers are liable to be duped; First Early.

2d per lb, 15s per cwt.

ROBIN ADAIR.

Similar to Fitch's Early and undoubtedly one of the best pink trimmed first Early Kidney yet introduced, a prize taker wherever shown, good quality and a heavy cropper; will do well on a dry, sandy soil.

Price: 2d per pound; 15s per cwt.

CARMEN No. 1.

This is an Australian introduction and is acknowledged there as one of the best first earlies grown. The tuber is very shapely, good cropper; A 1 flavour, white skin and undoubtedly very early.

Price: Two pence per pound; 15s per cwt.

BROWNELL'S BEAUTY.

Another Australian tuber and well worth a trial. Tubers round and white, inclined to blush, with bright pink eyes, very pretty; good cropper and fine flavour; main crop.

Price: Two pence per pound; 15s per cwt.

DUKE OF ALBANY.

A kidney-shaped white second early; heavy cropper of good quality.

Price: Two pence per pound; 15s per cwt.

BRITISH QUEEN.

Now so well known as one of the best first earlies grown; white skin heavy cropper and should be grown by all potato growers; excellent flavour and for show purposes cannot be beaten.

Price: Two pence per pound; 15s per cwt.

FACTOR.

A new variety giving excellent results; white skin, heavy cropper and beautiful flavour; second early.

Price fourpence per pound; 30s⁴/₂ per cwt.

FLUKE.

One of our best Kidney varieties; good blight resister, heavy cropper and good flavour.

Price: Threepence per pound; £1 per cwt.

ELDORADO.

This much lauded tuber which brought exorbitant prices has not found favour as it should have done; in some places in the North Island it has done exceedingly well, giving big crops. It is of fine flavour and a good blight resister; main crop.

Price: Four pence per pound; £1 10s per cwt.

BURBANK.

One of Burbank's seedlings; white skin; heavy cropper and fair flavour; seems to be a good blight resister.

Price: Fourpence per pound; £1 10s per cwt.

IRISH FLOUR BALL.

A splendid white, rough-skinned tuber; round shape, strong growing haulms, very heavy cropper and beautiful flavour; indeed these tubers when boiled are real balls of flour and they are well named.

Price: Fourpence per pound; £1 10s per cwt.

SUTTON'S DISCOVERY.

Another new variety well spoken of in England but which has not yet done very well in the trials held in New Zealand. It is a white round tuber with a very rough skin and vigorous growth, a good blight resister and big cropper.

Price: One shilling per pound; £5 per cwt.

MAORI CHIEF.

One of our best second earlies; heavy cropper; round tubers of shaded rose colour, deep pink eyes, splendid flavour and a good blight resister.

Price Threepence per pound; £1 per cwt.

COLONIST.

A vigorous growing pink variety with long tubers, heavy cropper and very mealy when cooked.

Price: Three pence per pound; £1 per cwt.

EARLY PRIDE.

A first early which more will be heard of next year, coming out splendidly in all trials, extra early, vigorous grower, heavy cropper with fine shaped white tubers.

Price: One shilling per pound; £4 cwt.

VICAR OF LACHAM.

A light blue skinned round potato with shallow dark blue eyes; second early of good quality and a fine show variety.

Price: Fourpence per pound; £1 10s per cwt.

PEACH BLOSSOM.

A good old variety, a cross between Maori Chief and American Flour Ball; a strong grower with bright pink flowers; heavy yielder and would suit a dry soil.

Price: Threepence per pound; £1 per cwt.

FIJI.

This is a redskin with deep eyes; of most peculiar flavour; a heavy cropper and one of the most vigorous growing tubers I have.

Price: Threepence per pound; £1 per cwt.

NINETY FOLD.

A fairly heavy cropping potato and in favour in England, though not so good as several of our old standard varieties.

Price: Threepence per pound; £1 per cwt.

ACME.

Australian variety, one of the most vigorous growing varieties I have; haulms of upright growth and very wiry; tubers rough and large; a variety I would recommend for light land; a blight resister and very heavy cropper.

Price: Fourpence per pound; 30s per cwt.

WHITE ELEPHANT.

Much similar to Acme, heavy cropper; strong haulms of upright growth; large rough tubers and inclined to shade pink after being dug a week or two; main crop.

Price: Three pence per pound;; £1 per cwt.

SIR JOHN LLEWELLYN.

This splendid white kidney has become highly popular. The tubers are of good size and shape and when cooked white and floury. Has received an award of merit Royal Horticultural Society.

Four pence per lb or £1 10s per cwt.

DANIELS SENSATION.

Raised by Daniels Bros., Norwich. This grand new Main Crop potato has proved itself one of the heaviest cropping and best varieties we have ever grown. It is of a good robust constitution, the haulms growing two feet high, the tubers are of good size, thick pebble shape with very shallow eyes; the skin is whole and slightly netted, a sure indication of cooking qualities, the flesh being white, mealy and of the finest texture. It is a great favourite alike with the cook and the exhibitor.

Price 3d per lb or £1 per cwt.

KING EDWARD VII.

A very fine main crop variety; the haulms grow two feet high and it is fairly robust, producing a large crop of handsome tubers. The skin is white with a blotch of pink about the eyes, which gives it a very pleasing appearance. It is a good cooker and free from disease; for exhibition it is first class.

4d per lb, £1 per cwt.

SCOTTISH BLUE.

Very much like the Skerry in growth; the tubers are round, of dark blue colour, rather deep eyes, beautiful quality, a blight resister and a good cropper, wiry haulms of dark appearance.

3d per lb, £1 per cwt.

LAPSTONE KIDNEY.

One of our good old potatoes which as a kidney will take a lot of beating; a big cropper and one of the finest flavoured tubers yet grown.

2d per lb, 15s per cwt.

BRUCE.

Another of our good old varieties which will take a lot of beating; a heavy cropper and a second early, in fact could be classed in the main crop varieties; vigorous grower, shapely tubers and of good quality.

2d per lb, 15s per cwt.

UP TO DATE—Findlay's.

Now so well known that it is unnecessary to describe. A heavy cropper, tubers long and kidney shaped, with smooth skin. Very fair quality, good blight resister and vigorous grower.

2d per lb, 15s per cwt.

DAKOTA RED.

A leading American variety, red skin, shapely tuber, oblong in shape, splendid flavour and a heavy cropper. In Bulletin No. 8 issued by the United States Department of Agriculture this variety received first honours as a blight resister and as a cropper. Well worth a place in any garden; second early.

3d per lb, £1 per cwt.

TRUE BLUE.

A fine shaped dark blue tuber, heavy cropper, good quality main crop.

2d per lb, 15s per cwt.

COME TO STAY.

A new variety and one which has found favour by all who have grown it; it is of vigorous growth, a good blight resister and heavy cropper of splendid shaped tubers.

Price: Sixpence per pound; £2 cwt.

BLACK KIDNEY.

A jet black skinned kidney; one of the earliest varieties grown; a heavy cropper and beautiful flavour.

Price: Threepence per pound; £1 per cwt.

OLD LATE WHITE.

An old variety and a good one; fine shaped, oblong tubers, white skin and a heavy cropper, beautiful cooker and a good blight resister, main crop.

Price: Three pence per pound £1 per cwt.

IMPERATOR.

A French seedling variety similar to Old Late White; good cropper of well shaped white tubers and a fair resister of blight; main crop.

Price: Threepence per pound; £1 per cwt.

DAISY.

Another splendid first early variety; white skin; heavy cropper; oblong shaped tubers of splendid flavour and a variety we will hear more about.

Price: Fourpence per pound; £1 10s per cwt.

VERMONT GOLD COIN.

A favoured plate variety of shapely tubers; white skin and inclined to gold shade, splendid quality and heavy cropper,

Price: Fourpence per pound, £1 10s per cwt,

CLIFF KIDNEY.

A great cropper of ugly rough tubers and of poor quality,

Price threepence per pound; £1 per cwt,

FLOUNDERS.

Much like Up-to-date, a fine show tuber, robust grower, heavy cropper and fine flavour of Australian introduction; main crop variety.

Price: Threepence per pound; £1 per cwt.

VANGUARD.

Introduced from Australia last year; a heavy cropping variety; pink skin and a beautiful cooker; main crop.

Price: Threepence per pound; £1 per cwt.

BROWN RIVERS.

A favourite Australian potato of the main crop variety not unlike the old Blue Derwent; a late cropper, heavy yielder and beautiful cooker; should be grown more in New Zealand.

Price: Three pence per pound; £1 per cwt.

CROPPER.

A robust growing disease resisting variety; white skin tubes of good shape and a splendid boiler.

Price: Threepence per pound; £1 per cwt.

Up to this I have given a brief description of my best varieties; it is not necessary to do this with them all, for it would take too much space and would only weary those interested in potato culture. If readers requiring a description of any of the other varieties will kindly write I will only be too pleased to give any information they desire. I would also emphasise the fact that a potato will not suit all soils or climates. Some are more suited to a damp soil and for this I would recommend Princess Victoria, Sutton's Abundance, Northern Star, Eldorado, Sir John Llewellyn, British Queen, Carmen No. 1, Scotia, and Lapstone Kidney. Again others prefer a dry, sandy manured soil and for this I would recommend some of the more vigorous growers such as Beauty of Hebron, White Elephant, Acme, Irish Flounder, Princess Victoria, main crop, and for your first early crop plant on sandy ground: Fitch Early, Robin Adair, Carter's Early Favourite and several others.

I would advise growers to find out what tuber suits their climate and soil and then stick to it; do not bother

with a lot of these new varieties unless you like experimenting; let experimenters grow them first and the smaller growers can benefit by published results. Appended are results of experiments conducted at Willowbridge, the digging results being under the supervision of Mr Macpherson, of the N.Z. Agricultural Department. These will, I feel sure, be found of interest and value.

	lbs.
Monarch (a well-shaped tuber with a few small ones) ..	107
Ideal	52
Dobbie's selected	24
American Flourballs	94
Child's Early Market	40
Myatt's Ashleaf	44
Florida	80
Lady's Finger	55
Paragon	59
King of Earlies	40
Maori Favourite	43
Queen of Earlies	42
White Beauty of Hebron ..	55
Express	25
Early Vermont	30
Fitch's Early	53
Dakota Red	70
True Blue	43
Paragon	65
Schoolmaster	25
Jennie Deans	33
Findlay's Rosabel	33
First in the Market No. 1 ..	35
River's Royal Ashleaf	19
Ireland's Farewell	25
Ressie Valdie's	33
Daniel's Sensation (Australian)	35
Snowdrift	38
Breeze's Prolific	61
Early Rose (American)	51
Lapstone Kidney	38
Sir John Lewellyn	48
Robin Adair (one of the best pink first earlies)	71
Snowdrop, No. 1 (extra fine white first early)	64
Beauty of Hebron	45
Carmen, No. 1 (Australian) ..	54
Brownell's Beauty	50
Carter's Early Favourite	63
Duke of Albany	59
Australian Lapstone	60

rows 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

	Lbs.
British Queen	95
Factor (a new variety and will come out right)	100
Fluke	91
Eldorado (a disappointment) ..	58
Ayrshire Hero	95
Duchess of Cornwall, 6 sets, 12lb	
Pearl, 9 sets, 29lb	
Burbank, 12 sets, 21lb	
No. 20, 8 sets, 13lb	
Sutton's Supreme, 5 sets, 5lb	
Early Harvest	39
Irish Flourball, (fine cooking, round, white)	135
Up-to-date	86
Princess Victoria (undoubtedly the best main crop for quantity and quality)	171
Sutton's Discovery (disappointing)	35
Champion Skerry (favourite in Ireland)	101
Challenger	90
Moori Chief (good second early) ..	95
Colonist	52
Scottish Blue	90
Cow	84
Early Pride (a coming first early) ..	100
Vicar of Latham	44
Abbey Craig	55
Peach Blossom	55
Ninetyfold	75
Lady Fife	35
Early Market Favourite	27
Fiji	76
Ireland's Farewell	40
Federation	53
Reading Russett	27
Northern Star (needs a damp year)	65
Snowdrop, No. 2	35
Belgium Pink	64
Early Sunrise	55
White Elephant (very rough)	140
Acme (very rough)	140
Flounders	100
Henderson's Early Puritan (the best first early, good quality)	94
Vanguard	62
Brown Rivers	104
Vermont (Australian)	70
Crofter	67
Old Blue Derwent	110

	Lbs.
Come to Stay	92
Black Kidney or Black Heart ...	33
Lord Roberts (extra fine quality) ...	122
The Bruce (good old variety) ...	90
Hard White	35
Old Late White	62
Imperator (very fair cropper) ...	70
Hibernia	29
King Edward the Seventh ...	43
Snowflake	29
Crompton	25
Circular Head	48
Sharp's Victor	43
Prince Regents	50
Findlay's Her Majesty	42
Rivers' Royal Ashleaf	28
Vitch's Prolific	65
Daisy (extra early white)	59
Early Shortlip	31
Sutton's Supreme	47
Daniel's Sensation (good second early white, fine shape)	95
Burpee's Great Divide	45
Vermont Gold Coin (good quality) ...	67
Ringleader	21
Veitch's Ashleaf	19
King of Russets	28
Ruby Queen	12
International	15
Cliff Kidney (very rough, suit poor soil)	165
Old Early Puritan	18
Britannia	92
Mammoth Pearl	22
The Dean	44
Magnum Bonum	35
Findlay's Challenge	25
Her Majesty	37
Early Beauty	35
Ruby	23
Dakota Red	61
Dickson's Round Seedling	55
First on the Market (round white good cooker)	91
Village Blacksmith	64
Rob Roy	22
Old English Ashleaf	18
Victoria Elba	82
Bread Fruit	72
Brunswick	23
Moxee's	24
Intermediate	5
Redskins, 8 sets, 22lb	

Lbs.

Plunket, 8 sets, 8lb
 Bismark, 2 sets, 5lb
 Conachers, 2 sets, 5lb
 Flat Stalk, 3 sets, 5lb

SEED AND LIME TESTS.

Up-to-date (egg-sized seed	... 107
Up-to-date (uncut large, about 1lb	
seed)	93
Up-to-date (large seed, cut)	... 95
Princess Victoria (round whole seed,	
limed)	130
Princess Victoria (bottom ends)	... 83
Princess Victoria (rose ends)	... 91
Princess Victoria (large seed)	... 119

In remarking on these the Canterbury Times draws attention to the fact that they confirm the very satisfactory results Mr McGowan has secured in former years from Princess Victoria seed. Many much boomed varieties had proved utter failures, although it must not be overlooked that a season with more moisture might have found them making a more favourable comparison. Mr McGowan considers Princess Victoria and Lord Roberts his two best table varieties, being for flavour and nutriment far ahead of Up to date, Northern Star etc. Princess Victoria is of course the best for yield and suits all soils. Mr McGowan's main crop at Willowbridge from a paddock next to the experimental plot, yielded 18 tons to the acre, Lord Roberts 15, and Up to date 14. Writing editorially the same issue of the Canterbury Times speaks of the value of these experiments and congratulates the experimentalist upon the thoroughness with which he had carried out his self imposed task.



ON COOKING POTATOES.

It is one thing to grow the potato, but quite another to cook it properly, so that the tubers shall be in the best possible condition for eating. It is said with a certain amount of truth, that few people know how to cook the noble tuber properly. It is quite as important to instruct the readers of this handbook how to cook a potato, as it is to teach them how to grow it.

THE WRONG WAY is to peel off the rind very thickly, and throw the tubers into cold water to soak for an hour or so before cooking. The thick peeling is wasteful, and means the loss of a considerable amount of the best part of the potato, while the long immersion in water after peeling means a loss of soluble food matter, and a predisposition to waxiness instead of mealiness after cooking. Starting the tubers to boil in cold water is another common cause of waxiness, and the absence of that nice floury condition everyone appreciates in a well-cooked tuber.

THE RIGHT WAY to cook the potato is to remove the peel as thinly as possible, and to at once put the tubers into boiling water in an iron saucepan, adding some salt at the same time. Keep the water boiling steadily—not fast or too slowly. When the tubers are rather more than half done, pour off all but just enough water to cover the bottom of the saucepan, stand the latter near the fire with the lid slightly tilted to liberate the steam. Treated thus, the tuber will cook like balls of flour. The saucepan should not be placed near enough to the fire to cause the tubers to burn, but where there is a moderate heat to drive off superfluous moisture and leave the tubers dry. If the tubers cannot be eaten at once, cover them with a clean white cloth: this will prevent them becoming sodden with steam, and will preserve their flavour. Never place the tubers into the dish till ready to be served.



